

# SEQUENCE LISTING

<110> Hemmati-Brivanlou, Ali  
Weinstein, Daniel C.

<120> TRANSLATION INITIATION FACTOR 4AIII, AND METHODS OF USE  
THEREOF

<130> 600-1-211 N

<140> UNASSIGNED

<141> 1999-05-25

<160> 12

<170> PatentIn Ver. 2.0

<210> 1

<211> 1245

<212> DNA

<213> Xenopus laevis

<400> 1

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ccaacgtttg atacgatggg gctgagggaa gaccttctga gaggcattca tgcttatgga 180
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cagtgtttgg atattcagat ccgtgaaacc caagccttga ttttagcacc caccaaagag 360
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<210> 2

<211> 415

<212> PRT

<213> Xenopus laevis

<400> 2

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Ala Lys Arg Leu Leu Arg Glu Glu Asp Met Thr Thr Val Glu Phe Gln  
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Thr Ser Glu Glu Val Asp Val Thr Pro Thr Phe Asp Thr Met Gly Leu  
35 40 45

Arg Glu Asp Leu Leu Arg Gly Ile Tyr Ala Tyr Gly Phe Glu Lys Pro  
50 55 60

Ser Ala Ile Gln Gln Lys Ala Ile Lys Gln Ile Ile Lys Gly Arg Asp  
65 70 75 80

Val Ile Ala Gln Ser Gln Ser Gly Thr Gly Lys Thr Ala Thr Phe Cys  
85 90 95

Val Ser Val Leu Gln Cys Leu Asp Ile Gln Ile Arg Glu Thr Gln Ala  
100 105 110

Leu Ile Leu Ala Pro Thr Lys Glu Leu Ala Arg Gln Ile Gln Lys Val  
115 120 125

Leu Leu Ala Leu Gly Asp Tyr Met Asn Val Gln Cys His Ala Cys Ile  
130 135 140

Gly Gly Thr Asn Val Gly Glu Asp Ile Arg Lys Leu Asp Tyr Gly Gln  
145 150 155 160

His Val Val Ala Gly Thr Pro Gly Arg Val Phe Asp Met Ile Arg Arg  
165 170 175

Arg Ser Leu Arg Thr Arg Ala Ile Lys Met Leu Val Leu Asp Glu Ala  
180 185 190

Asp Glu Met Leu Asn Lys Gly Phe Lys Glu Gln Ile Tyr Asp Val Tyr  
195 200 205

Arg Tyr Leu Pro Pro Ala Thr Gln Val Cys Leu Ile Ser Ala Thr Leu  
210 215 220

Pro His Glu Ile Leu Glu Met Thr Asn Lys Phe Met Thr Asp Pro Ile  
225 230 235 240

Arg Ile Leu Val Lys Arg Asp Glu Leu Thr Leu Glu Gly Ile Lys Gln  
 245 250 255

Phe Phe Val Ala Val Glu Arg Glu Glu Trp Lys Phe Asp Thr Leu Cys  
 260 265 270

Asp Leu Tyr Asp Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Cys Asn  
 275 280 285

Thr Lys Arg Lys Val Asp Trp Leu Thr Glu Lys Met Arg Glu Ala Asn  
 290 295 300

Phe Thr Val Ser Ser Met His Gly Asp Met Pro Gln Lys Glu Arg Glu  
 305 310 315 320

Ser Ile Met Lys Glu Phe Arg Ser Gly Ala Ser Arg Val Leu Ile Ser  
 325 330 335

Thr Asp Val Trp Ala Arg Gly Leu Asp Val Pro Gln Val Ser Leu Ile  
 340 345 350

Ile Asn Tyr Asp Leu Pro Asn Asn Arg Glu Leu Tyr Ile His Arg Ile  
 355 360 365

Gly Arg Ser Gly Arg Tyr Gly Arg Lys Gly Val Ala Ile Asn Phe Val  
 370 375 380

Lys Asn Asp Asp Ile Arg Ile Leu Arg Asp Ile Glu Gln Tyr Tyr Ser  
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Thr Gln Ile Asp Glu Met Pro Met Asn Val Ala Asp Leu Ile Glx  
 405 410 415

<210> 3

<211> 532

<212> DNA

<213> Homo sapiens

<400> 3

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gatgaaatgt tgaataaagg tttcaaagag cagatttacg atgtatacag gtacctgcct 420  
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532

<210> 4

<211> 177

<212> PRT

<213> Homo sapiens

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Ile Gln Val Arg Glu Thr Gln Ala Leu Ile Leu Ala Pro Thr Arg Glu  
35 40 45

Leu Ala Val Gln Ile Gln Lys Gly Leu Leu Ala Leu Gly Asp Tyr Met  
50 55 60

Asn Val Gln Cys His Ala Cys Ile Gly Gly Thr Asn Val Gly Glu Asp  
65 70 75 80

Ile Arg Lys Leu Asp Tyr Gly Gln His Val Val Ala Gly Thr Pro Gly  
85 90 95

Arg Val Phe Asp Met Ile Arg Arg Arg Ser Leu Arg Thr Arg Ala Ile  
100 105 110

Lys Met Leu Val Leu Asp Glu Ala Asp Glu Met Leu Asn Lys Gly Phe  
115 120 125

Lys Glu Gln Ile Tyr Asp Val Tyr Arg Tyr Leu Pro Pro Ala Thr Gln  
130 135 140

Val Val Leu Ile Ser Ala Thr Leu Pro His Glu Ile Leu Glu Met Thr  
145 150 155 160

Asn Lys Phe Met Thr Asp Pro Ile Arg Ile Leu Val Gly Ile Pro Ala  
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<210> 5

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5

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gctgctcaaa gaggaagaca tgactaaagt ggaattcgag accagcgagg aggtggatgt 180
gacccccacg ttcgacacca tgggcctgcg ggaggacctg ctgcggggca tctacgctta 240
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acagcatgtt gtcgcgggca ctccaggcg tgtttttgat atgattcgtc gcagaagcct 600
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gttctaagtc tttttcatta aaaatttaaa acttta 1536
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<210> 6

<211> 411

<212> PRT

<213> Homo sapiens

<400> 6

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      20                      25                      30
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Glu Val Asp Val Thr Pro Thr Phe Asp Thr Met Gly Leu Arg Glu Asp
      35                      40                      45
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Leu Leu Arg Gly Ile Tyr Ala Tyr Gly Phe Glu Lys Pro Ser Ala Ile
      50                      55                      60
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Gln Gln Arg Ala Ile Lys Gln Ile Ile Lys Gly Arg Asp Val Ile Ala  
 65 70 75 80  
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 85 90 95  
 Leu Gln Cys Leu Asp Ile Gln Val Arg Glu Thr Gln Ala Leu Ile Leu  
 100 105 110  
 Ala Pro Thr Arg Glu Leu Ala Val Gln Ile Gln Lys Gly Leu Leu Ala  
 115 120 125  
 Leu Gly Asp Tyr Met Asn Val Gln Cys His Ala Cys Ile Gly Gly Thr  
 130 135 140  
 Asn Val Gly Glu Asp Ile Arg Lys Leu Asp Tyr Gly Gln His Val Val  
 145 150 155 160  
 Ala Gly Thr Pro Gly Arg Val Phe Asp Met Ile Arg Arg Arg Ser Leu  
 165 170 175  
 Arg Thr Arg Ala Ile Lys Met Leu Val Leu Asp Glu Ala Asp Glu Met  
 180 185 190  
 Leu Asn Lys Gly Phe Lys Glu Gln Ile Tyr Asp Val Tyr Arg Tyr Leu  
 195 200 205  
 Pro Ser Ala Thr Gln Val Val Leu Ile Ser Ala Thr Leu Pro His Glu  
 210 215 220  
 Ile Leu Glu Met Thr Asn Lys Phe Met Thr Asp Pro Ile Arg Ile Leu  
 225 230 235 240  
 Val Lys Arg Asp Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Phe Val  
 245 250 255  
 Ala Val Glu Arg Glu Glu Trp Lys Phe Asp Thr Leu Cys Asp Leu Tyr  
 260 265 270  
 Asp Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Cys Asn Thr Lys Arg  
 275 280 285  
 Lys Val Asp Trp Leu Thr Glu Lys Met Arg Glu Ala Asn Phe Thr Val  
 290 295 300  
 Ser Ser Met His Gly Asp Met Pro Gln Lys Glu Arg Glu Ser Ile Met  
 305 310 315 320

Lys Glu Phe Arg Ser Gly Ala Ser Arg Val Leu Ile Ser Thr Asp Val  
 325 330 335

Trp Ala Arg Gly Leu Asp Val Pro Gln Val Ser Leu Ile Ile Asn Tyr  
 340 345 350

Asp Leu Pro Asn Asn Arg Glu Leu Tyr Ile His Arg Ile Gly Arg Ser  
 355 360 365

Gly Gln Tyr Gly Arg Lys Gly Val Ala Ile Asn Phe Val Lys Asn Asp  
 370 375 380

Asp Ile Arg Ile Leu Arg Asp Ile Glu Gln Tyr Tyr Ser Thr Gln Ile  
 385 390 395 400

Asp Glu Met Pro Met Asn Val Ala Asp Leu Ile  
 405 410

<210> 7

<211> 1682

<212> DNA

<213> Homo sapiens

<400> 7

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 cagcggcagg gaggtcggca gcggcacagc gaggtcggca gcggcacgca ggtcggcagg 180  
 ggcgcgcgct gtgctcttcc gcggaactctg aatcatggcg accacggcca cgatggcgac 240  
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 gaccagcgag gaggtggatg tgacccccac gtgcgacacc atgggcctgc gggaggacct 360  
 gctgcggggc atctacgctt acgggttttga aaaaccatca gcaatccagc aacgagcaat 420  
 caagcagatc atcaaaggga gagatgtcat cgcacagtct cagtccggca caggaaaaac 480  
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 cggtgactac atgaatgtcc agtgccatgc ctgcattgga ggcaccaatg ttggcgagga 660  
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 caacaagttc atgaccgacc caatccgcat cttggtgaaa cgtgatgaat tgactctgga 960  
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<210> 8  
 <211> 411  
 <212> PRT  
 <213> Homo sapiens

<400> 8

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Leu Leu Lys Glu Glu Asp Met Thr Lys Val Glu Phe Glu Thr Ser Glu  
 20 25 30

Glu Val Asp Val Thr Pro Thr Phe Asp Thr Met Gly Leu Arg Glu Asp  
 35 40 45

Leu Leu Arg Gly Ile Tyr Ala Tyr Gly Phe Glu Lys Pro Ser Ala Ile  
 50 55 60

Gln Gln Arg Ala Ile Lys Gln Ile Ile Lys Gly Arg Asp Val Ile Ala  
 65 70 75 80

Gln Ser Gln Ser Gly Thr Gly Lys Thr Ala Thr Phe Ser Ile Ser Val  
 85 90 95

Leu Gln Cys Leu Asp Ile Gln Val Arg Glu Thr Gln Ala Leu Ile Leu  
 100 105 110

Ala Pro Thr Arg Glu Leu Ala Val Gln Ile Gln Lys Gly Leu Leu Ala  
 115 120 125

Leu Gly Asp Tyr Met Asn Val Gln Cys His Ala Cys Ile Gly Gly Thr  
 130 135 140

Asn Val Gly Glu Asp Ile Arg Lys Leu Asp Tyr Gly Gln His Val Val  
 145 150 155 160

Ala Gly Thr Pro Gly Arg Val Phe Asp Met Ile Arg Arg Arg Ser Leu  
 165 170 175

Arg Thr Arg Ala Ile Lys Met Leu Val Leu Asp Glu Ala Asp Glu Met  
 180 185 190



Leu Asn Lys Gly Phe Lys Glu Gln Ile Tyr Asp Val Tyr Arg Tyr Leu  
 195 200 205

Pro Pro Ala Thr Gln Val Val Leu Ile Ser Ala Thr Leu Pro His Glu  
 210 215 220

Ile Leu Glu Met Thr Asn Lys Phe Met Thr Asp Pro Ile Arg Ile Leu  
 225 230 235 240

Val Lys Arg Asp Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Phe Val  
 245 250 255

Ala Val Glu Arg Glu Glu Trp Lys Phe Asp Thr Leu Cys Asp Leu Tyr  
 260 265 270

Asp Thr Leu Thr Ile Thr Gln Ala Val Ile Phe Cys Asn Thr Lys Arg  
 275 280 285

Lys Val Asp Trp Leu Thr Glu Lys Met Arg Glu Ala Asn Phe Thr Val  
 290 295 300

Ser Ser Met His Gly Asp Met Pro Gln Lys Glu Arg Glu Ser Ile Met  
 305 310 315 320

Lys Glu Phe Arg Ser Gly Ala Ser Arg Val Leu Ile Ser Thr Asp Val  
 325 330 335

Trp Ala Arg Gly Leu Asp Val Pro Gln Val Ser Leu Ile Ile Asn Tyr  
 340 345 350

Asp Leu Pro Asn Asn Arg Glu Leu Tyr Ile His Arg Ile Gly Arg Ser  
 355 360 365

Gly Arg Tyr Gly Arg Lys Gly Val Ala Ile Asn Phe Val Lys Asn Asp  
 370 375 380

Asp Ile Arg Ile Leu Arg Asp Ile Glu Gln Tyr Tyr Ser Thr Gln Ile  
 385 390 395 400

Asp Glu Met Pro Met Asn Val Ala Asp Leu Ile  
 405 410

<210> 9

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

<400> 9

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<210> 10

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:primer

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20

<210> 11

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 11

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<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer

<400> 12

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20